was also obstinate constipation. At the time Flatau's report was written no paralysis was found in the left lower limb, but both limbs of the left side were less well developed than those of the right side, and some of the muscles of the left upper limb were paralyzed and exhibited reaction of degeneration. Flatau believed the case was one of myelitis apopletica following the abscesses mentioned.

SPILLER.

PATHOLOGY.

LE PHENOMENE DE LA CHROMATOLYSE APRES LE RESECTION DU NERF PNEUMOGASTRIQUE (The Phenomena of Chromatolysis, following the Resection of the Pneumogastric Nerve). C. Ladame (Nouvelle Iconographie de la Salpêtrière, 13th year, 1900, Nos. 4, 5 and 6, p. 301).

This is a very thorough study of the subject, extending through three numbers of the journal. The paper is divided into six main divisions. (1) A consideration of the numerous and varied results obtained by the Nissl method in regard to the finer anatomical structure of the nerve cell and its lesion. Some special modifications of this method, especially the procedure of Van Gehuchten. The special technic employed in this research. (2) A résumé of our knowledge of the finer anatomy of the nervous elements. (3) The study of chromatolysis in general. (4) A critical analysis and a description of the sections of the ganglionic plexus of the bulbar region in connection with the resected pneumogastric. (5) The interpretation of the phenomena observed. and lastly the conclusions derived from the study. The animals used in the experiments were rabbits, dogs, and cats, two of each. All were operated on in the same way. The animals were chloroformed and the pneumogastric nerve was resected in the cervical region for a distance of 1 to 2 cm. After an interval varying from 7 to 195 days, the animals were killed always by chloroform and examined by the methods described. The specimen studies for this paper were cut serially in parafin and stained with toluidin blue. The preference was given to the latter rather than to methylene blue on account of the more simple manipulation and a more exact differentiation. In regard to the phenomenon of chromatolysis in general the author concludes that it differs according to the case, being unlike in sensory and in motor neurones. It is further not the same in all animals, varying according to the age and species. It also varies according to the mode of experiment and the nature of the lesion. It is necessary then always to specify exactly the conditions under which an experiment is made and the observation noticed in each case. The following are the conclusions which the author sets down as the result of his work. (1) The chromatolysis of the plexiform ganglion of the bulbar neuclei of the vagus is a constant phenomenon following the resection of the pneumogastric or vago-sympathetic (dog) of the neck. (2) Chromatolysis is characterized by the disintegration and the disappearance of the chromatin blocks and by the migration of the nucleus. (3) Turgescence is not a regular phenomenon of chromatolysis. (4) The nucleus is active in its displacement during the phenomenon of chromatolysis. (5) The phenomena of reaction and repair are different in the dog, cat and rabbit. (6) Repair is as constant a phenomenon in motor as in sensory cells. (7) The sensory cells are more rapidly affected, longer and more profoundly, in repair and reaction than the motor cells. (8) The number of cells is practically the same in the normal and abnormal plexiform ganglion both of the cat and dog 118, 122, and 147 days after resection of the pneumogastric. (9) In the dog at the 122d day and in the cat at the 147th day after the resection of the vagus the dorsal nucleus of the tenth nerve presented no diminution in the number of its elements, although it was otherwise pathologically affected. (10) Dogs at the 22d and the 122d days presented chromatolysis in the ganglion the nerve of which had not been destroyed, as well as in the nucleus of the resected nerve. (11) The dorsal nucleus and the plexiform ganglion of the vagus nerve in the rabbit at the 195th day after the resection showed a definite reduction of nervous elements, half of which had disappeared. (12) The chromatin substance plays an accessory rôle in the normal function of nervous elements. (13) The union of two ends of the resected nerve is in no sense indispensible for the replacing of the reserve chromatin of the nerve cells. (14) The vacuolization is a form of degenerative cell process. (15) In the cat at the 147th day the plexiform ganglion, the nerve of which had been forcibly compressed between the blades of a forceps, presented no evidence of chromatolysis. Schwab.

PSYCHIATRY.

Observations on the Condition of the Blood in the Insane based on One Hundred Examinations. By F. Percival Mackie (The Journal of Mental Science, Vol. 47, 1901, p. 34).

In this series the author has tried to take into account the various modifications that change the composition of the blood and has examined 100 patients, as follows, general paresis 16, epilepsy 40, melancholia 20, mania 13, miscellany 14. The author concludes that in looking through the grand averages one cannot help noting the very slight departure from normal which exists in the blood of insane patients. Although in some cases slight changes are noted with some degree of constancy, yet they are so insignificant that they do not appear to throw any light on the pathology, or give any indication of treatment in any class of case. When they do occur, there is good reason to suppose that the alteration in the blood state is quite secondary to the mental change; and further, the examination of the blood in the present state of our knowledge is not even an aid to prognosis or to diagnosis. Jelliffe.

Spät Genesung bei Geisteskrankheiten (Late Recoveries in Insanity). Kreuser (Allg. Zeitschrift für Psychiatrie, 1900, Bd. lvii, Hft. 6, S. 771).

Alluding to the fact that the division of mental disease into acute and chronic forms is to a considerable extent relative and arbitrary, the author proceeds to discuss the question of duration of different forms of insanity, and the criteria of recovery. The matter seems to resolve itself more into a question of diagnosis and prognosis than into one of treatment for it is pretty clearly shown that certain forms of mental disease have a much greater tendency to end in dementia than others, which may last for a greater or less number of years without proceeding to this end. In a general way recoveries after the persistence of the mental disturbance for three years, are to be